
CLAIMS

[Claim(s)]

[Claim 1] A quantum method of the amount of chemicals characterized by carrying out the quantum of the amount of chemicals by fixing an enzyme to a quartz resonator and comparing with oscillation frequency of said quartz resonator when this amount of chemicals has not adhered oscillation frequency at the time of making this amount of chemicals adhere to a front face of said quartz resonator by enzyme reaction into which this enzyme decomposes the specific amount of chemicals, respectively.

[Claim 2] Oscillation frequency at the time of making this amount of chemicals adhere to a front face of said surface acoustic wave device by enzyme reaction into which an enzyme is fixed to a surface acoustic wave device, and this enzyme decomposes the specific amount of chemicals, [whether oscillation frequency of said surface acoustic wave device when this amount of chemicals has not adhered is compared, and] Or a quantum method of the amount of chemicals characterized by carrying out the quantum of the amount of chemicals by comparing resonance frequency when this amount of chemicals makes it adhere to a front face of said surface acoustic wave device with resonance frequency of said surface acoustic wave device when this amount of chemicals has not adhered.

[Claim 3] A quantum method of the amount of chemicals which is characterized by using covalent bond of said enzyme and glutaraldehyde in a quantum method of the amount of chemicals according to claim 1 or 2 in fixing said enzyme to said quartz resonator or said surface acoustic wave device.

[Claim 4] A quantum method of the amount of chemicals which is characterized by using a specific binding reaction of avidin and a biotin in a quantum method of the amount of chemicals according to claim 1 or 2 in fixing said enzyme to said quartz resonator or said surface acoustic wave device.

[Claim 5] A quantum method of the amount of chemicals which is characterized by using a specific binding reaction of streptoavidin and a biotin in a quantum method of the amount of chemicals according to claim 1 or 2 in fixing said enzyme to said quartz resonator or said surface acoustic wave device.

[Claim 6] A quantum method of the amount of chemicals characterized by making said enzyme into an urease and carrying out the quantum of the amount of ureas in a quantum method of the amount of chemicals according to claim 1 or 2.

[Claim 7] An enzyme sensor characterized by coming to fix an enzyme to a quartz resonator.

[Claim 8] An enzyme sensor characterized by coming to fix an enzyme to a surface acoustic wave device.

[Claim 9] An enzyme sensor characterized by performing immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device using covalent bond of said enzyme and

glutaraldehyde in an enzyme sensor according to claim 7 or 8.

[Claim 10] An enzyme sensor characterized by performing immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device using a specific binding reaction of avidin and a biotin in an enzyme sensor according to claim 7 or 8.

[Claim 11] An enzyme sensor characterized by using a specific binding reaction of streptoavidin and a biotin for immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device in an enzyme sensor according to claim 7 or 8.

[Claim 12] An enzyme sensor characterized by making said enzyme into an urease in an enzyme sensor according to claim 7 or 8.

[Claim 13] A manufacture method of an enzyme sensor which is characterized by performing immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device using covalent bond of said enzyme and glutaraldehyde in manufacturing an enzyme sensor according to claim 7 or 8.

[Claim 14] A manufacture method of an enzyme sensor which is characterized by performing immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device using a specific binding reaction of avidin and a biotin in manufacturing an enzyme sensor according to claim 7 or 8.

[Claim 15] A manufacture method of an enzyme sensor which is characterized by performing immobilization with said enzyme and said quartz resonator, or said surface acoustic wave device using a specific binding reaction of streptoavidin and a biotin in manufacturing an enzyme sensor according to claim 7 or 8.

[Claim 16] A manufacture method of an enzyme sensor characterized by making said enzyme into an urease in a manufacture method of an enzyme sensor according to claim 13, 14, or 15.

[Translation done.]